

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-001835

(43)Date of publication of application : 06.01.1999

(51)Int.Cl.

D02G 3/04

(21)Application number : 09-153777

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(22)Date of filing : 11.06.1997

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(54) CELLULOSIC FIBER MIXED PRODUCT

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain the subject mixed product making the most of a soft touch feeling having unique drapeability, body and stiffness of a cellulosic filament yarn by mixing the cellulosic filament yarn with a polytrimethylene terephthalate-based fiber yarn.

SOLUTION: This cellulosic fiber mixed product is obtained by mixing a cellulosic filament yarn which is a continuous filament yarn composed of a cellobiose containing glucoses bound through 1,4- β bonds with a polytrimethylene terephthalate-based filament yarn. The polytrimethylene terephthalate is synthesized by binding terephthalic acid, etc., to trimethylene glycol, etc., in the presence of a catalyst.

LEGAL STATUS

[Date of request for examination]

31.05.2004

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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CLAIMS

[Claim(s)]

[Claim 1] The cellulose fiber mixed use article with which it comes to use cellulose system filament yarn and a polytrimethylene terphthalate system fiber line of thread together.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to a cellulose fiber mixed use article. It is related with the cellulose fiber mixed use article which fully employed the flexible aesthetic property equipped with drape property with cellulose system filament yarn more peculiar to a detail, or Hari and chewiness efficiently.

[0002]

[Description of the Prior Art] When a cellulosic fiber is conventionally used for clothing, the clothing has high sweat absorvency, its static electricity band voltage is also low, and since it has flexible aesthetic property the top, it has been used abundantly centering on an inner ** outer. However, when worn, it was easy to become Siwa, and it was easy to contract by wash etc., and the clothing which consists of a cellulosic fiber had a problem practical. In order to improve such a fault, many things which compounded polyester fiber, a polyamide fiber, etc. are proposed.

[0003] however, although an improvement of wash contraction of all and an improvement of a wrinkling are carried out, when using especially cellulose fiber with filament yarn, the former becomes a waxy touch peculiar to polyester fiber, and aesthetic property peculiar to a cellulosic fiber fails to boil it markedly. Ester fiber is made super-thin in JP,6-25937,A, and it is made to reduce the aesthetic property fault of ester fiber. However, in super-thin-ization, although aesthetic property becomes soft, while there is a peculiar feeling of a drape of cellulose fiber, it does not result in the peculiar flexible aesthetic property equipped with Hari and chewiness.

[0004]

[Problem(s) to be Solved by the Invention] The purpose of this invention is to offer the cellulose fiber mixed use article which has aesthetic property peculiar to a cellulosic fiber.

[0005]

[Means for Solving the Problem] this invention persons came to complete this invention, as a result of finding out the fiber mixed use article which does not spoil the aesthetic property of cellulose fiber and which has the epoch-making description and inquiring further wholeheartedly, even if it mixed a polytrimethylene terphthalate system fiber line of thread and cellulose system filament yarn, as a result of inquiring about the mixed use article it is unrefined from cellulose system filament yarn, polyester fiber, or a polyamide fiber.

[0006] namely, the cellulose fiber mixed use article with which, as for this invention, it comes to use cellulose system filament yarn and a polytrimethylene terphthalate system fiber line of thread together -- it comes out. Hereafter, this invention is further explained to a detail. The cellulose system filament yarn in this invention is a continuous glass fiber filament which makes a configuration unit cel biose which carried out 1 of a glucose, and 4beta association, for example, regenerated-cellulose fiber, such as viscose process rayon (polynosic is included) and cuprammonium rayon, is mentioned.

[0007] Moreover, multifilament raw thread (super-thin yarn is included) ***** whose single-yarn denier the gestalt of fiber is continuous glass fiber and is about 0.1-5 deniers - strong throwing, Within limits which there is fluid blasting yarn containing commingled yarn and false twist yarn etc., and do not spoil the purpose of this invention, usually by 30 or less % of the weight of within the limits Cotton, Other fiber, such as a protein natural fiber represented by natural cellulose fiber and wool yarn, such as hemp, and silk, may be mixed with means, such as mix spinning, confounding interweaving, ****, and compound false twists (ductility difference false twist etc.).

[0008] the polytrimethylene terphthalate system fiber line of thread in this invention -- a

trimethyleneterephthalate unit -- the line of thread of the main polyester fiber repeatedly made into a unit -- saying -- a trimethyleneterephthalate unit -- about 50 -- more than mol % -- desirable -- more than 70 mol % -- further -- more than 80 mol % -- the thing beyond 90 mol % is said still more preferably. therefore, the total quantity of other acid components as the third component, and/or a glycol component -- about 50 -- less than [mol %] -- desirable -- less than [30 mol %] -- further -- less than [20 mol %] and the polytrimethylene terphthalate contained in not more than 10 mol % still more preferably are included.

[0009] Polytrimethylene terphthalate is compounded by making a terephthalic acid or its functional derivative, and a trimethylene glycol or its functional derivative combine with the bottom of a suitable reaction condition under existence of a catalyst. In this synthetic process, a suitable kind or two sorts or more of third components are added, it is good also as copolymerized polyester, and after compounding separately the polyester, nylon, and polytrimethylene terphthalate other than polytrimethylene terphthalate, such as polyethylene terephthalate, it may blend or compound spinning of a sheath core, side by side, etc. may be carried out.

[0010] As the third component to add, aliphatic series dicarboxylic acid (oxalic acid, adipic acid, etc.), alicycle group dicarboxylic acid (cyclohexane dicarboxylic acid etc.) and aromatic series dicarboxylic acid (isophthalic acid --) aliphatic series glycols (ethylene glycol --), such as sodium sulfoisophtharate Alicycle group glycols, such as 1, 2-propylene glycol, and tetramethylene glycol (cyclohexane diol etc.), Aromatic series dioxy compounds (hydroquinone bisphenol A etc.), the aliphatic series glycol containing aromatic series (1, 4-screw (beta-hydroxy ethoxy) benzene, etc.), There are polyether glycols (a polyethylene glycol, polypropylene glycol, etc.), aliphatic series hydroxy acid (omega-oxy-caproic acid etc.), aromatic series hydroxy acid (P-oxy-benzoic acid etc.), etc. Moreover, a polymer can also use the compounds (glycerols, such as a benzoic acid etc.) which have one piece or three ester plasticity functional groups or more by within the limits which is a line substantially.

[0011] Furthermore, anti-oxidants, such as easy lubricating agents, such as crystallization nucleating additives, such as ultraviolet ray absorbents, such as stabilizers, such as flatting agents, such as a titanium dioxide, and a phosphoric acid, and a hydroxy benzophenone derivative, and talc, and Aerosil, and a hindered phenol derivative, a flame retarder, an antielectric agent, the pigment, the fluorescent brightener, the infrared absorption agent, the defoaming agent, etc. may contain. After obtaining non-extended yarn at an about 1500m [/minute] rolling-up rate about the spinning of a polytrimethylene terphthalate system fiber line of thread in this invention, any of the above high-speed spinning method (a spin draw or the spin take-up method) may be adopted by 5000m/in the approach of draw-twisting by about 2 to 3.5 times, the spin-draw method which linked the spinning-draw-twisting process directly, and rolling-up rate.

[0012] Moreover, the gestalt of a polytrimethylene terphthalate system fiber line of thread The multifilament raw thread spun yarn, such as ring spun yarn, and whose single-yarn denier continuous glass fiber or a staple fiber is sufficient, and are about 0.1-5 deniers (super-thin yarn is included), ***** - strong throwing, commingled yarn, false twist yarn (the extension false twist yarn of POY is included), fluid blasting yarn, etc. are mentioned. Other fiber, such as a natural fiber usually represented within limits which do not spoil the purpose of this invention by wool yarn by 30 or less % of the weight of within the limits, may be mixed with means, such as mix spinning, confounding interweaving, ****, and compound false twists (ductility difference false twist etc.).

[0013] Above-mentioned cellulose system filament yarn and a polytrimethylene terphthalate system fiber line of thread may be mixed with means, such as confounding interweaving, ****, and compound false twists (ductility difference false twist etc.), as coming to use the cellulose system filament yarn and the polytrimethylene terphthalate system fiber line of thread in this invention together, and it is a mode also with still more desirable intersection editing, union, etc. being on board, and also compounding both, in case a knit fabric is formed.

[0014] As cellulose system filament yarn, 20d-150d are desirable as 20d-150d, and a polytrimethylene terphthalate fiber line of thread. The blended ratio of the cellulose system filament yarn for attaining the purpose of this invention is range where 30 % of the weight or more is desirable. What carried out the intersection knitting and weaving of both the fiber line of thread is used preferably, and cellulose system filament yarn is distributed over a front face as a still more desirable gestalt. For example, cellulose system filament yarn is taken out with reversible organization, tuck organization, etc. to a front face.

[0015] As a knitted tissue, any of round braids, such as ** editing, such as half tricot and rales, a T-cloth,

smoothness, rubber, MIRANORIBU, and punch ROMA, and weft knitting are sufficient, and a gage is [in the volume on **] 3-22GG in 14-40GG and weft knitting at 14-40GG and a round braid. It is hard to generate especially the longitudinal unevenness of the ching muscles and T-cloths edited by **, such as half tricot and rales, or which smooth round braid.

[0016] As a textile construction, any are sufficient as *****, such as plain weave, twill, and satin, a heavy organization, a pile organization, leno weave, etc. Moreover, especially fabric density is not restricted, either. In dyeing and finishing this knit fabric, pretreatment of the alkali loss in quantity carried out by the alkali treatment and polyester fiber for refinement usually carried out before dyeing, bleaching, or the dye affinity improvement of cellulose system filament yarn is not cared about at all.

[0017] Next, about dyeing, although cellulose system filament yarn uses reactive dye or direct dye, a thing especially with little former one's generating of a muscle or a stage is obtained. A polytrimethylene terphthalate system fiber line of thread is dyed using a disperse dye. As the desirable dyeing approach, 2 bath method or 1 bath method may be used. If the purpose of this invention is not spoiled in finish-machining, finish-machining of the resin treatment and water repellent finishing which are used for textile finishing, enzyme processing, etc. is usually applicable.

[0018] In addition, in order to attain the purpose of this invention, the blended ratio of cellulose system filament yarn is range where 30 % of the weight or more is desirable. It is clear that it is not what is specially restricted in this invention, either.

[0019]

[Embodiment of the Invention] Hereafter, although an example explains this invention concretely, this invention is not limited only to an example. In addition, the used fiber and hand evaluation are as follows.

(1) Hand evaluation; as compared with cuprammonium rayon 75d / cuprammonium rayon 100d taffeta, organic-functions evaluation was carried out by five persons, and it judged by the average. .

[0020] Five points; it is the aesthetic property which resembled cellulose system filament yarn extremely. Four points; it is the aesthetic property similar to cellulose system filament yarn.

Three points; it can be called neither.

Two points; it is the aesthetic property which does not resemble cellulose system filament yarn.

One point; it is the aesthetic property which does not resemble cellulose filament yarn at all.

(2) The rate of elastic recovery at the time of 10% expanding; applied 0.01g [d] preliminary tension to the sample, lengthened the rate for a fixed rate [per minute 20% of elongation], it was made to contract at the conversely same rate shortly in the place which became 10% of ductility, and the stress-strain curve was drawn. The residual ductility when falling even to 0.01 g/d with stress equal to preliminary tension was set to L during contraction, and it computed by the following formula.

[0021] Rate [at the time of 10% expanding] of elastic recovery = $(10-L) / 10 \times 100$ (%)

(3) Non-extended yarn was obtained by part for 1200m/in the spinning temperature of 265 degrees C, and spinning rate, subsequently the polytrimethylene terphthalate of process etasp/c=0.8 of a polytrimethylene terphthalate system fiber line of thread was draw-twisted by part for 800m/in the heated roll temperature of 60 degrees C, the hot plate temperature of 140 degrees C, 3 times as many draw magnification as this, and extension rate, and 100d/f [60] extension yarn was obtained.

[0022] The rate of elastic recovery at the time of 10% expanding was 98% 3.2 g/d and 46% respectively in 30 g/d list at the strong ductility of extension yarn, and an elastic-modulus list.

[0023]

[Example 1] Refinement and dyeing of the taffeta which made the woof the polytrimethylene terphthalate system fiber lines of thread (Asahi Chemical Industry Co., Ltd. make) 100d/60f of the above-mentioned process by using cuprammonium rayon (Asahi Chemical Industry [Co., Ltd.] make: trademark Bemberg) 75d/45f as warp were done using the jet dyeing machine.

[0024] In addition, it refines with a conventional method and then is disperse dye:Resolin. Blue With FBL (Bayer make)0.6%owf, DISUPATL(Akinari chemistry company make: Tamol mold dispersant) 1cc/l., pH=6.5, and a bath ratio 1:20 It dyes at 130 degrees C for 60 minutes. With sodium-hydrosulfite 2g/l., a 0.5g [l.] sodium hydroxide, and a bath ratio 1:20 Hot water rinsing is carried out after 10-minute reduction cleaning at 80 degrees C, then it is reactive dye:Sumifix. Brill Blue R(**-ized color tech company make)0.4%owf, After the 50g [l.] sodium sulfate, the 15g [l.] sodium carbonate, and the bath ratio 1:20 dyed at 60 degrees C for 60

minutes, score roll FC-250(Kao [Corp.] make: cleaning agent) 1cc/l. and a bath ratio 1:20 performed soaping at 80 degrees C for 10 minutes.

[0025] It sank into the water solution containing 2 % of the weight of knickerbockers silicon AMZ (Japanese flower chemistry company make: amino silicon system softening agent) after dyeing desiccation, ****(ed) at 85% of rates of pickup, and dried for 2 minutes at 140 degrees C. The result of hand evaluation was 4.4 points.

[0026]

[The example 1 of a comparison] the taffeta which cuprammonium rayon (Asahi Chemical Industry [Co., Ltd.] make: trademark Bemberg) 75d/45f and the woof become from polyester fiber (Asahi Chemical Industry Co., Ltd. make) 100d/60f be refine and dyed on the same conditions as an example 1, and after dyeing desiccation, warp sank into the water solution containing 2 % of the weight of knickerbockers silicon AMZ (Japanese flower chemistry company make: amino silicon system softening agent), ****(ed) at 85% of rates of a pickup, and dried for 2 minutes at 140 degrees C.

[0027] The result of hand evaluation was 2.0 points.

[0028]

[The example 2 of a comparison] the taffeta which cuprammonium rayon (Asahi Chemical Industry [Co., Ltd.] make : trademark Bemberg) 75 d / 45 f and the woof become from polyester system super-thin fiber (Asahi Chemical Industry Co., Ltd. make) 105 d / 700 f refined and dye on the same conditions as an example 1, and warp sank into the water solution containing 2 % of the weight of knickerbockers silicon AMZ (Japanese flower chemistry company make : an amino silicon system softening agent), ****(ed) by 85 % of the rates of a pickup after dyeing desiccation, and dry for 2 minutes by 140 degrees C.

[0029] The result of hand evaluation was 2.4 points.

[0030]

[Effect of the Invention] The cellulose fiber mixed use article of this invention has aesthetic property peculiar to a cellulosic fiber, and does not have the problem of yellowing and fading practical.

[Translation done.]

CELLULOSIC FIBER MIXED PRODUCT

Patent number: JP11001835
Publication date: 1999-01-06
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Classification:
- international: D02G3/04
- european:
Application number: JP19970153777 19970611
Priority number(s): JP19970153777 19970611

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PROBLEM TO BE SOLVED: To obtain the subject mixed product making the most of a soft touch feeling having unique drapeability, body and stiffness of a cellulosic filament yarn by mixing the cellulosic filament yarn with a polytrimethylene terephthalate-based fiber yarn. **SOLUTION:** This cellulosic fiber mixed product is obtained by mixing a cellulosic filament yarn which is a continuous filament yarn composed of a cellobiose containing glucoses bound through 1,4-β bonds with a polytrimethylene terephthalate-based filament yarn. The polytrimethylene terephthalate is synthesized by binding terephthalic acid, etc., to trimethylene glycol, etc., in the presence of a catalyst.

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(19) 日本国特許庁 (J P)

(12) 公開特許公報 (A)

(11) 特許出願公開番号

特開平11-1835

(43) 公開日 平成11年(1999) 1月6日

(51) Int.Cl.⁸

D 0 2 G 3/04

識別記号

F I

D 0 2 G 3/04

審査請求 未請求 請求項の数 1 O L (全 4 頁)

(21) 出願番号 特願平9-153777

(22) 出願日 平成9年(1997) 6月11日

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(54) 【発明の名称】 セルロース繊維混用品

(57) 【要約】

【課題】 セルロース系繊維特有の風合いを有し、実用的にも黄変、退色の問題が無いセルロース繊維混用品の提供。

【解決手段】 セルロース系繊維糸条とポリトリメチレンテレフタレート系繊維糸条が混用されてなるセルロース繊維混用品。

【特許請求の範囲】

【請求項1】 セルロース系フィラメント糸とポリトリメチレンテレフタレート系繊維糸条とが混用されてなるセルロース繊維混用品。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】本発明は、セルロース繊維混用品に関する。より詳細には、セルロース系フィラメント糸の独特のドレープ性やハリ、コシを備えた柔軟な風合いを十分に生かしたセルロース繊維混用品に関する。

【0002】

【従来の技術】従来、セルロース系繊維は、例えば、衣類に利用したときにその衣類は吸汗性が高く、静電気帯電圧量も低く、その上柔軟な風合いを有するため、インナー、アウターを中心に多用されてきている。しかしながら、セルロース系繊維からなる衣類は、着用しているとシワになりやすく、洗濯などによって収縮しやすく、実用的に問題があった。このような欠点を改善するためにポリエステル系繊維やポリアミド系繊維などを複合したものが数多く提案されている。

【0003】しかしながら、何れも洗濯収縮の改善やシワの改善はされるものの、特にセルロース繊維をフィラメント糸で用いる場合、前者はポリエステル系繊維特有のワキシータッチになり、セルロース系繊維特有の風合いが格段に損なわれる。特開平6-25937には、エステル繊維を極細化してエステル繊維の風合い欠点を低減させている。しかしながら、極細化では風合いは柔らかくなるが、セルロース繊維の独特のドレープ感がありながらハリ、コシを備えた独特の柔軟な風合いには至らない。

【0004】

【発明が解決しようとする課題】本発明の目的は、セルロース系繊維特有の風合いを有するセルロース繊維混用品を提供することにある。

【0005】

【課題を解決するための手段】本発明者らは、セルロース系フィラメント糸とポリエステル系繊維やポリアミド系繊維よりなる混用品について研究した結果、ポリトリメチレンテレフタレート系繊維糸条と、セルロース系フィラメント糸とを混用しても、セルロース繊維の風合いを損なわない、画期的な特徴を有する繊維混用品を見出し、さらに鋭意研究した結果、本発明を完成するに至った。

【0006】即ち、本発明は、セルロース系フィラメント糸とポリトリメチレンテレフタレート系繊維糸条とが混用されてなるセルロース繊維混用品、である。以下、本発明を更に詳細に説明する。本発明におけるセルロース系フィラメント糸とは、グルコースの1, 4β結合をしたセルビオースを構成単位とする長繊維フィラメントであり、例えば、ビスコース法レーヨン（ポリノジック

を含む）やキュプラなどの再生セルロース繊維が挙げられる。

【0007】又、繊維の形態は、長繊維であり、単糸デニールが0.1～5デニール程度のマルチフィラメント原糸（極細糸を含む）甘撚糸～強撚糸、混撚糸、仮撚糸を含む）、流体噴射加工糸等があり、本発明の目的を損なわない範囲内で通常30重量%以下の範囲内で綿、麻などの天然セルロース繊維やウールや絹に代表されるタンパク質天然繊維等他の繊維を混紡、交絡混織、交撚、複合仮撚（伸度差仮撚等）等の手段で混用してもよい。

【0008】本発明におけるポリトリメチレンテレフタレート系繊維糸条とは、トリメチレンテレフタレート単位を主たる繰返し単位とするポリエステル繊維の糸条をいい、トリメチレンテレフタレート単位を約50モル%以上好ましくは70モル%以上、更には80モル%以上、更に好ましくは90モル%以上のものをいう。従って、第三成分として他の酸成分及び／又はグリコール成分の合計量が、約50モル%以下好ましくは30モル%以下、更には20モル%以下、更に好ましくは10モル%以下の範囲で含有されたポリトリメチレンテレフタレートを包含する。

【0009】ポリトリメチレンテレフタレートは、テレフタル酸又はその機能的誘導体と、トリメチレングリコール又はその機能的誘導体とを、触媒の存在下で、適当な反応条件下に結合せしめることにより合成される。この合成過程において、適当な一種又は二種以上の第三成分を添加して共重合ポリエステルとしてもよいし、又、ポリエチレンテレフタレート等のポリトリメチレンテレフタレート以外のポリエステル、ナイロンとポリトリメチレンテレフタレートを別個に合成した後、ブレンドしたり、複合紡糸（鞘芯、サイドバイサイド等）してもよい。

【0010】添加する第三成分としては、脂肪族ジカルボン酸（シュウ酸、アジピン酸等）、脂環族ジカルボン酸（シクロヘキサンジカルボン酸等）、芳香族ジカルボン酸（イソフタル酸、ソジウムスルホイソフタル酸等）、脂肪族グリコール（エチレングリコール、1, 2-アプロピレングリコール、テトラメチレングリコール等）、脂環族グリコール（シクロヘキサンジオール等）、芳香族ジオキシ化合物（ハイドロキノンビスフェノールA等）、芳香族を含む脂肪族グリコール（1, 4-ビス（β-ヒドロキシエトキシ）ベンゼン等）、ポリエーテルグリコール（ポリエチレングリコール、ポリプロピレングリコール等）、脂肪族オキシカルボン酸（ω-オキシカプロン酸等）、芳香族オキシカルボン酸（p-オキシ安息香酸等）等がある。又、1個又は3個以上のエステル形成性官能基を有する化合物（安息香酸等又はグリセリン等）も重合体が実質的に線状である範囲内で使用出来る。

【0011】更に、二酸化チタン等の艶消剤、リン酸等

の安定剤、ヒドロキシベンゾフェノン誘導体等の紫外線吸収剤、タルク等の結晶化核剤、アエロジル等の易滑剤、ヒンダードフェノール誘導体等の抗酸化剤、難燃剤、制電剤、顔料、蛍光増白剤、赤外線吸収剤、消泡剤等が含有されていてもよい。本発明においてポリトリメチレンテレフタレート系繊維糸条の紡糸については、1500m/分程度の巻取り速度で未延伸糸を得た後、2〜3.5倍程度で延伸する方法、紡糸-延伸工程を直結した直延法、巻取り速度5000m/分以上の高速紡糸法（スピンドロー又はスピントイクアップ法）の何れを採用してもよい。

【0012】又、ポリトリメチレンテレフタレート系繊維糸条の形態は、長繊維でも短繊維でもよく、リング紡績糸等の紡績糸、単糸デニールが0.1〜5デニール程度のマルチフィラメント原糸（極細糸を含む）、甘然糸〜強燃糸、混織糸、仮燃糸（POYの延伸仮燃糸を含む）、流体噴射加工糸等が挙げられ、本発明の目的を損なわない範囲内で通常30重量%以下の範囲内でウールに代表される天然繊維等他の繊維を混紡、交絡混織、交燃、複合仮燃（伸度差仮燃等）等の手段で混用してもよい。

【0013】本発明におけるセルロース系フィラメント糸とポリトリメチレンテレフタレート系繊維糸条とが混用されてなるとは、上述のセルロース系フィラメント糸とポリトリメチレンテレフタレート系繊維糸条を交絡混織、交燃、複合仮燃（伸度差仮燃等）等の手段で混用してもよく、更には両者を編織物を形成する際に、交編・交織等の機上で複合する事も好ましい態様である。

【0014】セルロース系フィラメント糸としては20d〜150d、ポリトリメチレンテレフタレート繊維糸条としては20d〜150dが好ましい。本発明の目的を達成するためのセルロース系フィラメント糸の混率は、30重量%以上が好ましい範囲である。両繊維糸条を交編織したものが好ましく用いられ、更に好ましい形態としては、セルロース系フィラメント糸が表面に分布したものである。例えば、リバーシブル編成やタック編成などでセルロース系フィラメント糸を表面に出す。

【0015】編組織としては、ハーフトリコット、ラッセルなどの経編、天竺、スムーズ、ゴム、ミラノリブ、ポンチローマなどの丸編及び横編の何れでもよく、ゲージは、経編で14-40GG、丸編で14-40GG、横編で3-22GGである。特に、ハーフトリコットやラッセルなどの経編の経筋や天竺やスムーズなどの丸編の緯段は発生しにくい。

【0016】織組織としては、平織、綾織、朱子織などの一重織、重ね組織、パイル組織、からみ織など何れでもよい。又、織密度も特に限るものではない。該編織物を染色加工するに当たり、通常染色前に実施される精練、漂白あるいはセルロース系フィラメント糸の染色性改善のためのアルカリ処理やポリエステル系繊維で実施

されるアルカリ減量などの前処理は何ら構わない。

【0017】次に、染色については、セルロース系フィラメント糸は反応性染料、又は直接染料を用いるが、特に前者の方が筋や段の発生の少ないものが得られる。ポリトリメチレンテレフタレート系繊維糸条は、分散染料を用いて染色する。好ましい染色方法としては、2浴法でも1浴法でもよい。仕上げ加工においては本発明の目的を損なわなければ、通常、繊維加工に用いられる樹脂加工、撈水加工や酵素処理などの仕上げ加工は適用できる。

【0018】尚、本発明の目的を達成するには、セルロース系フィラメント糸の混率は、30重量%以上が好ましい範囲である。本発明においては特別に制限されるものでない事も明らかである。

【0019】

【発明の実施の形態】以下、本発明を実施例で具体的に説明するが、本発明は実施例のみに限定されるものではない。尚、用いた繊維、風合評価は以下の通り。

(1) 風合評価；キュブラ75d/キュブラ100dタフタと比較して5人で官能評価し、その平均値で判定した。

【0020】5点；極めてセルロース系フィラメント糸に似た風合いである。

4点；セルロース系フィラメント糸に似た風合いである。

3点；どちらともいえない。

2点；セルロース系フィラメント糸に似ていない風合いである。

1点；全くセルロース系フィラメント糸に似ていない風合いである。

(2) 10%伸長時の弾性回復率；試料に0.01g/dの初荷重をかけ、毎分20%の伸びの一定割合の速度で伸ばし、伸度10%になったところで今度は逆に同じ速度で収縮させて、応力-歪曲線を描いた。収縮中、応力が初荷重と等しい0.01g/dにまで低下した時の残留伸度をLとし、下記式で算出した。

【0021】10%伸長時の弾性回復率 $= (10 - L) / 10 \times 100 (\%)$

(3) ポリトリメチレンテレフタレート系繊維糸条の製法

$\eta_{sp}/c = 0.8$ のポリトリメチレンテレフタレートを紡糸温度265℃、紡糸速度1200m/分で未延伸糸を得、次いで、ホットロール温度60℃、ホットプレート温度140℃、延伸倍率3倍、延伸速度800m/分で延伸して、100d/60fの延伸糸を得た。

【0022】延伸糸の強伸度、弾性率並びに10%伸長時の弾性回復率は、各々3.2g/d、46%、30g/d並びに98%であった。

【0023】

【実施例1】キュブラ（旭化成工業（株）製；商標ベン

ベルグ) 75d/45fを経糸として、上記製法のポリトリメチレンテレフタレート系繊維糸条(旭化成工業(株)製) 100d/60fを緯糸にしたタフタを液流染色機を用いて、精練・染色した。

【0024】なお、常法により精練し、次に分散染料: Resolin Blue FBL(バイエル社製) 0.6%owf、ディスパーTL(明成化学社製: タモール型分散剤) 1cc/リットル、pH=6.5、浴比1:20で、130℃にて60分染色し、ハイドロサルファイト2g/リットル、水酸化ナトリウム0.5g/リットル、浴比1:20で、80℃にて10分還元洗浄の後、湯洗し、続いて、反応性染料: Sumifix Brill Blue R(住化染料テック社製) 0.4%owf、硫酸ナトリウム50g/リットル、炭酸ナトリウム15g/リットル、浴比1:20で、60℃にて60分染色した後、スコアロールFC-250(花王(株)製: 洗浄剤) 1cc/リットル、浴比1:20で、80℃にて10分ソーピングを行った。

【0025】染色乾燥後、ニッカシリコンAMZ(日華化学社製: アミノシリコン系柔軟剤) 2重量%を含む水溶液に含浸し、ピックアップ率85%にて絞液し、140℃で2分間乾燥した。風合評価の結果は4.4点であった。

【0026】

【比較例1】経糸がキュプラ(旭化成工業(株)製: 商標ベンベルグ) 75d/45fと緯糸がポリエステル系繊維(旭化成工業(株)製) 100d/60fよりなるタフタを実施例1と同様の条件にて精練・染色し、染色乾燥後、ニッカシリコンAMZ(日華化学社製: アミノシリコン系柔軟剤) 2重量%を含む水溶液に含浸し、ピックアップ率85%にて絞液し、140℃で2分間乾燥した。

【0027】風合評価の結果は2.0点であった。

【0028】

【比較例2】経糸がキュプラ(旭化成工業(株)製: 商標ベンベルグ) 75d/45fと緯糸がポリエステル系極細繊維(旭化成工業(株)製) 105d/700fよりなるタフタを実施例1と同様の条件にて精練・染色し、染色乾燥後、ニッカシリコンAMZ(日華化学社製: アミノシリコン系柔軟剤) 2重量%を含む水溶液に含浸し、ピックアップ率85%にて絞液し、140℃で2分間乾燥した。

【0029】風合評価の結果は2.4点であった。

【0030】

【発明の効果】本発明のセルロース繊維混用品は、セルロース系繊維特有の風合いを有し、実用的にも黄変、退色の問題が無い。